APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/763,877	02/28/01	WAJS	A	82032-0006

024633   MM91/0926
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EXAMINER
KIM, A

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 09/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-10_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-10_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

Prelim. Amdt./Amendment

1.   Receipt is acknowledged of the Preliminary Amendment filed 28 February 2001.

Priority

2.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3.   The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: FPGA integrated device and security system.

4.   This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

5.   Applicant(s) are reminded to include the following in the next communication with respect to the header(s) within the specification as following:

a)   -- **Background of the Invention** --: The specification should set forth Background of the Invention in two parts: --**Field of the Invention** -- and -- **Description of the Related Art** --.

b)   -- **Brief Summary of the Invention** --.

c)   -- Brief Description of the Several Views of the Drawing(s) --.

d)   -- Detailed Description of the Invention --.

Appropriate correction is required.

Drawings

6.   The drawings are objected to because it is not labeled appropriately (i.e., Fig. 1 for the

main drawing). Further, all the reference numbers in Fig. 1 (i.e., blank boxes 1 - 5) should be

labeled accordingly. Correction is required.

Claim Objections

7.   Claim 2 is objected to because of the following informalities:

Re claim 2, line 3: Substitute "FPGA" with -- field programmable gate array (FPGA) --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

8.   Claims 1 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Regarding claim 1, line 2, the phrase "or the like" renders the claim(s) indefinite because

the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"),

thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Appropriate correction is required.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

10   (e) the invention was described in a patent granted on an application for patent by another
filed in the United States before the invention thereof by the applicant for patent, or on an
international application by another who has fulfilled the requirements of paragraphs (1),
(2), and (4) of section 371(c) of this title before the invention thereof by the applicant for
patent.

15

9.   Claims 1 – 4 and 6 – 8 are rejected under 35 U.S.C. 102(e) as being anticipated by

Hazama (US 6,089,460).

Re claims 1 - 4, Hazama teaches a security system comprising an IC card 1 with

EEPROM 1b, FPGA (Field Programmable Gate Array) 20 utilizing SRAM (Static Random

20   Access Memory), (col.3, lines 33 – 51).

Re claims 6 – 8, Interacting with the external device 100, IC card 1 cipher/decipher

security information (col. 1, lines 28 – 36; col. 10, line 64 – col. 11, line 2). Hazama further

teaches that identification is etched in non-volatile memory (col. 1, lines 37 – 41).

25   *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hazama (US

6,089,460) in view of Tanaka (US 4,924,075). The teachings of Hazama have been discussed

above.

Hazama fails to specifically teach or fairly suggest that FPGA in IC card is stored in

battery-powered RAM.

Tanaka teaches a smart card 1 powered by internal battery 6 (col. 1, line 67 – col.2, line

10).

In view of Tanaka's teaching, it would have been obvious to an ordinary skill in the art at

the time the invention was made to employ well-known internal battery to the teachings of

Hazama in order to make the card versatile. By powering the card with internal battery, the card

can be used with external device which does not carry power supply. Accordingly, such

modification would have been an obvious extension as taught by Hazama, and therefore an

obvious expedient.

11.   Claims 9 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazama

(US 6,089,460) in view of Cantone et al. (US 5,594,657). The teachings of Hazama have been

discussed above.

Hazama fails to specifically teach or fairly suggest of synthesizing, layout and use of high-level language as a method of programming FPGA.

Cantone teaches that FPGA can be programmed utilizing synthesis (col. 1, line 62 – col. 2, line 7) and layout tool (col. 16, lines 7 – 18). Cantone further teaches of programming FPGA

5   with user-friendly graphics interface (high level language), and the program is compiled to produce efficient executable (Abstract).

In view of Tanaka's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known method of FPGA programming to the teachings of Hazama in order to make the programming easier to the users. Further, by

10   compiling/optimizing the source code, generated executables will run faster, and the executable code can be ported to other FPGA, and thus an obvious expedient.

Conclusion

I.   The prior art made of record and not relied upon is considered pertinent to applicant's

15   disclosure: Henry et al. (US 5,774,058); Bjorn et al. (US 6,125,192); Beuk et al. (US 5,446,266); Bialick et al. (US 6,003,135) disclose IC cards and FPGA programming methods.

II.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru

20   Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35

25   U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly

signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding

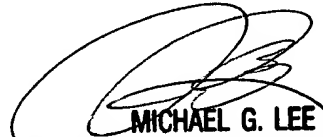5   should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Ahshik Kim

10   Patent Examiner
Art Unit 2876
September 14, 2001

MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
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